M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309742

Serial No. 1st and final

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Name of work:- Allied works for Swach Smart project & other Repairs & works for DWCC Centre in ward No. 5 Work order No:- EE-3/SWM/WO/16/2020-21 dated: 03.10.2020 Agreement No:- EE-3/SWM/AG/18/2020-21 dated: 03.10.2020. Job code No: 005-21-000001 Name of agency:- M/s Venkateshwara Constructions. K. Lokaraju						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (1)	Fabricating, Supplying & Erecting M.S angular Truss of Span upto 10m. The bottom & top member is provided with 50X50X6mm double equal angles, welded back to back						
	unit = Kgs	Nos	Length	M	Kg per	Density	Quantity
	for platform						
	ISMB 200	15	4.00		25.4	–	1524.00 Kgs
	ISMB 150X75	3	12.65		14.9	–	565.46
		9	4.00		14.90	–	549.81
	Channel – Section						
	for staircase ISMC-150	2X1	4.20		16.40	–	137.76
		2X1	1.25		16.40	–	41.00
		2X1	1.40		16.40	–	45.92

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M. A. R. 57 (Rule 116) **No. D** 309743

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work		Dimensions			Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Angles for partition.	Nos	Length		Kg/pc	Density	Quantity
	ISA 35x35x4mm below roof	8x4	4.10		2.66	—	348.99
		4x7	2.52		2.66	—	187.69
	ISA 35x35x4m above roof	8x4	4.10		2.66	—	348.99
		7x4	2.0		2.66	—	148.96
	MS sheet 6mm thick	No. 1	L 12.15	B 4.15	D. 0.0060	Density 7850	2374.90
	MS Gusset plate	24	0.32	0.32	0.012	7850	231.[illegible]
	Steps	13	1.00	0.25	0.003	7850	76.54
	for partition MS sheet 3mm thk	8	3.00	2.52	0.003	7850	1424.30

C&E
Manohar
28/12/22

ಪೌರಾಯುಕ್ತರು ಬಿಬಿಎಂಪಿ ಪೂರ್ವ ವಲಯ ಬೆಂಗಳೂರು

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	M/S Sheet 3mm thick	2	1.050	1.20	0.003	7850	59.35
	Ms square tube 50x50x4mm	4	4.10	0.20	0.004	7850	102.99
	Ladder	3	12.4	0.20	0.004	7850	233.62
	Vertical members - 100mm dia 3mm thick = πd = 0.31	2	0.31	2.8	0.003	7850	41.44
	Horizontal Member - 50mm dia & 3mm thick	10	0.16	0.6	0.003	7850	22.20
	Qty limited to	8451.09	Total				8465.41 Kgs
Item No (2)	Providing & fixing M.S hollow pipe of 14 gauge, Hand railing welding to	for	Balcony	with	50mm dia	M.S.	square rods placed vertical
	Unit - Sqm	20mm	x 20mm	M.S			

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309744

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions			Contents	Reference to last Measurement
		Number	Length	Breadth / Depth		
1	2	3	4	5 / 6	7	8
	for platform	1	16·10	– 0·90	14·49	
	forstaircase	2	4·80	– 0·90	8·64	
				Total	23·13	89m.
Item No. (3)	providing and applying enamel metal paint two coats (Excluding primer coat) over deco steel or other metal surface brushing to give an even sheade after cleaning off, grease, dirt and other foreign matter, Including cost of materials, labour complete as per Specification.					
	Gate and grills.	2	10·90	– 5·0	109·00	
				Total	109·00	89m

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (4)	providing and applying two coats (Excluding priming coat) on new wood surface and/or wood based surface with enamel paint to give an even shade, cleaning the surface of all dirt, dust & foreign matter Sand papering						
	Unit = Sqm						
	Door	2.25X1	0.90		2.1	4.25	
		2.25X2	1.20		1.20	6.48	
					Total	10.73 Sqm.	
Item No (5)	providing & fixing in position aluminium windows & Ventilator as per approved drawings with Sliding shutters using three track window frame fix						
	Windows	2	2.85		1.50	8.55	
		3	1.50		2.60	11.70	
					TOTAL	20.25	Sqm

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M. A. R. 57 (Rule 116) **No. D** 309745

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (6)	providing and fixing 6mm clear/opal white/ solar/ Broonze/ blue/green tinted Multiwall polycarbonate sheet for Tubular structure The work including cost all						
		2	2.80	–	1.50	8.40	
		3	1.50	–	2.60	11.70	
						20.10 Sqm.	
Item No (4)	providing 2 legged Scaffolding for stone Masonry work using 10-15cms dia best quality Casuring poles of 4m overall length (3m + 0.5m projection + 0.5m)						
	Scaffolding.						
	N/side & S/side	2	15.00	–	6.00	180.00	
	East/west side	2	15.00		6.00	180.00	
						360.00	Sqm

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (8)	Providing and laying in position plain Cement Concrete quality M20 with OPC Cement @ 300 kgs, with 20mm & down size graded granite metal (coarse aggregate) @ 0.69 cum and fine aggregates @ 0.43 cum for flooring						
	Avg thickness (0.12+0.08+0.10)/3	1	15.85	10.35	0.10	16.35	
					Total	16.35	cum.
Item No (9)	Windows & Ventilators : fixed lowers 4'x3' frame Section of size of 33 x 57mm mullion section (Box section) outer						
	Ventilators	2	0.75	-	0.60	0.90	
					Total	0.90	Sqm
Item No (10)	SOLID PANEL PVC DOOR SHUTTER made rigid foam panelled					Providing and fixing 30mm thick PVC Door Shutters made from Sq. s tubes of 19mm	

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309746

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
	PVC Door	2	0.75	–	2.10	3.15	
						3.15	Sqm.
Item No (11)	providing and fixing white vitreous china clay, water closet orissa pattern of size 580 x 440mm with integral type footrests, 100mm S or P trap,						
	Watercloset	2	–	–	–	2.00	
						2.00	Nos Each
Item No (12)	providing and fixing to wall, ceiling floor with cast iron coated PVC 6.00 Kg/sqcm						
	Sanitary line	1	9.5	–	–	9.50	
						9.50	Rmt

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (13)	providing and fixing chlorinated poly vinyl Chloride (CPVC) pipes Conforming IS 15778, having thermal stability for hot and cold water supply						
	25mm dia pipe	1	15.00	–	–	15.00	
					Total	15.00	m
Item No (14)	providing and fixing in position brass bib cock of approved quality 25mm nominal bore						
	Taps	4	–	–	–	4.00	
						4.00	Each

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309747

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions			Contents	Reference to last Measurement
		Number	Length	Breadth / Depth		
1	2	3	4	5 / 6	7	8
Steel No (1)	Abstract fabricating, supplying & erecting MS angular Truss of Span up to 10m. The bottom & top member is provided with 50×50×6mm double equal angles, welded back to back and in between top & bottom line, in area of mid section is provided with 50×50×6mm equal single angle for vertical and inclined members and at supports ends 40×40×5mm single angle is provided. All the members are welded together with 6mm gusset plate as per Drawing No. CBS/SD/K-Manrup/9/MND/97. The entire truss is anchored in RCC column by using 4Nos of MS anchor bolts at each support, with 10mm thick base plate and shoe plate. The work include Cutting, straightening, placing in position of M.S. angle and welding wherever necessary. and applying one coat of Redoxide primer coat to all the members					

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	including cost of all materials, labour charges, & hire charges of Machineries for cutting, welding, grinding & erection equipments etc Complete as per specification. Unit = Kgs Qty vide pre-measurements Recorded in this MB page no 10 - 309743 & 309744 Qty = 8465.41 Limited to 8451.09 @ Rate = 1382.4 - Amount = 11,68,278.68						
Item No. (2)	Providing and fixing M.S. handrailing for Balcony with 50mm dia M.S. hollow pipe 14 gauge welded to 20mm x 20mm Ms square rod placed vertical spaced at 100mm at regular intervals of 600mm. These vertical rods laterally tied to 3 horizontal rods spaced at equal intervals The assembly is fixed to concrete by using expansion bolts and welding the same to reinforcement bars. and making good the surface. All the joints and						

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309748

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Sections should be cut to length, welded and grinded wherever necessary etc Complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding cutting and grinding equipment, and electricity charges etc complete as per specification & drawing.						
	Unit = Sqm. Qty vide pre-measurements Recorded in this MB page No = 309744						
	Qty = 23.13 @	Rate =	3067.20			Amount = 70944.34.	
Item No (3)	providing and applying enamel paint two coats (Excluding priming coat) over new steel or other metal surface brushing to get even sheen after cleaning off, grease, dirt and other foreign matter, including cost of material, labour						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Completed as per specifications.						
	Unit = sqm						
	Qty vide pre-measurements recorded in this MB page No:- 309744						
	Qty = 109.00 @ Rate = 102.60					Amount = 11183.40	
Item No. (4)	providing and applying painting two coats (Excluding priming Coat) on new wood Surface and/or wood based surface with enamel paint to give an even shade clearing the surface of all dirt, dust and foreign matter Sand papering including costs of materials complete as per specifications						
	Unit = Sqm						
	Qty vide pre-measurements recorded in this MB page No:- 309745						
	Qty = 10.73 @ Rate = 104.76					Amount = 1124.34 Rs	

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309749

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No (5).	providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using three track window frame of size 92x31·75mm bottom section 1·3mm thick, weight 1·04 Kg/m; sides and top sections 1·3 mm thick, weight 0.933 Kg/m. Shutter frame section comprising top and bottom section of size 40mmx18mm, wall thickness 1·25mm weight 0·417 Kg/m, shutter interlock section 40mmx 26·7 mm wall thickness 1·1mm thick weight 0·469 Kg/m, the shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles tower bolts etc; providing & fixing 5·5mm thick plain glass for shutters fitted with rubber beading all aluminium sections including cutting to required length, joints mitred subdividing the frame tenonned and riveted in the assembled frame, stiffened with end clips for corners, angles etc...						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	and fixed to the walls, lintels floor beams / cills as the case may be with necessary steel screws, raul plugs or teak wood gatties including cutting masonry or louvers making good the original surface using cement mortar. Using aluminium section powdered coated to a minimum of 60-70 microns with Exterior durable pure polyster grade powder approved quality.						
	Unit = Sqm						
	Qty = Vide pre-measurements recorded in this MB page No! - 309745						
	Qty = 20.25 @ Rate = 4829.76 Amount = 97802.64 Rs						
Item No (6)	providing and fixing 6mm clear / Opal white / solar / Bronze / blue / green tinted multiwall poly Carbonate sheet for tubular structure. The work is including cost of all materials, labour charges and hire charges of machineries for cutting, welding, grinding and erection of equipments complete as per specifications						

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M. A. R. 57 (Rule 116) **No. D** 309750

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions			Contents	Reference to last Measurement
		Number	Length	Breadth / Depth		
1	2	3	4	5 / 6	7	8
	unit = sqm. Qty vide pre-measurements recorded in this MB page No: 309745					
lim	Qty = 20.25 ~~\~~ @ Rate = 3376.08 Amount = 67859.2 = 67859.21 Rs					
	Qty : 20.10 Sqm.					
Item (4)	providing 2 legged scaffolding for stone masonry work using 10-15cms diabest Quality casurina poles 6 m overall length (3m + 0.5m projection + 0.5m in to the ground) the distance between two rows being 1.25m and spacing of posts being 2m in both rows with 2 horizontal posts with 0.5m overlap on either side and braces at 2m c/c including longitudinal and transverse middle braces to set up and providing platform with casurina poles, forms tied up using coir rope completed as per specifications.					

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item No. (8)	Unit = Sqm Qty vide pre-measurements recorded in this MB page No:- 309745 Qty = 360.00 Sqm @ Rate = 141.60 Amount:- 50976.00 Rs providing and laying in position plain Cement concrete of mix M20 with OPC Cement @ 300 Kgs, with 20 mm & down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.43 cum, with Superplas-iciser @ 3 ltrs Confirming to IS 9103 - 1999 Re-affirmed - 2008, machine mixed, concrete laid in layers not Exceeding 15 cms thick well Compacted in foundation, plinth & cills, including costing all materials, labour, hoisting machinery. curing Complete as per Specifications specifications CPWD 4.1, 4.2 Unit = Ccum Qty vide pre-measurements recorded in this MB page No:- 309745 Qty = 16.35 cum @ Rate = 5950.80 Amount:- 97313.43 Rs.						

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M. A. R. 57 (Rule 116) **No. D** 309751

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
Item NO (9)	Ventilators:- Fixed louvers 4'x 3'(1219.2x 914mm) (BOX section) outer frame section size 33X57mm mullion section Unit = Sqm Qty vide Pre-measurements recorded in this MB page No:- 309746 Qty = 0.9 Sqm @ Rate = 3760.56 Amount = 3384.50 Rs						
Item NO (10)	SOLID PANEL PVC DOOR SHUTTER :- providing & fixing 30mm thick factory made rigid foam panelled door shutters made from MS tube 19 gauge thickness size 19mmx 19mm for styles and 15X15mm for top & bottom rails, covered with heat moulded PVC channel of 5mm thick sheet & 30x50m to form styles 75mm wide PVC sheets for top rail, lock rail & bottom rail on either side & 5mm						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	thick PVC sheet 20mm wide as frame, Sealed to the Styles & rails with 5 x 30mm PVC sheet fitted in the MS frame, Sealed to the Styles & rails with 5mm x 30mm PVC sheet beading on either side & joined together with solvent cement adhesive etc... Complete as per manufacturers specification & directions of Engineer Incharge Unit = Sqm Qty vide pre measurements recorded in this MB pg NO' 309 746 Qty = 3.15 @ rate = 2999.16 Amount = 9447.35						
Item NO (11)	providing and fixing white vitreous china close, water closet orissa pattern of size 580 X 440 mm integral type footrests, 100mm size P trap, 10 litre low level PVC flushing cistern (all approved make) with fittings C.I / M.S. brackets 32 diameter flush pipe fittings and clamps, overflow arrangements with special 25mm diameter mosquito proof coupling of approved Design, painting of fittings & brackets, Cutting & making good the wall & floors wherever required including cost of materials labour Complete as per specification						

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M. A. R. 57 (Rule 116) **No. D** 309752

Measurement Book

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Number	Dimensions: Length	Dimensions: Breadth	Dimensions: Depth	Contents	Reference to last Measurement
1	2	3	4	5	6	7	8
	Unit = Each Qty vide pre-measurement recorded in this MB page No:- 309746. Qty:- 2.00 @ Rate = 4561.92 Amount = 9123.84 Rs						
Item No (12)	providing & fixing to wall, ceiling and floor uplasticised PVC 6.00 kgs/sqcm working pressure with pipe fittings, wall clips etc. and making good the wall, ceiling & floor for sanitary pipelines including cost of all materials, labour charges, hoisting acquirement and testing Complete as per specifications – 160mm dia						
	Unit = m Qty recorded vide pre measurements Put this MB page No. 309746 Qty = 9.50 Rmt @ Rate = 921.24 Amount = 8571.78						
Item No (13)	Providing & fixing chlorinated CPVC pipes conforming to IS 15778, having thermal						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Stability for hot & cold water supply including all cpvc plain & brass threaded fittings including fixing the pipe with clamps at 1.00m c/c spacing. This includes jointing of pipes and fittings with One step cpvc solvent cement & the cost of cutting chases & making good the same including testing joints complete (Concealed work including cutting chases & good the walls etc) → 25mm nominal OD pipes						
	Unit = RM Qty vide pre-measurements recorded in this MB pg No: 309/47						
	Qty = 15.00m @ Rate = 316.44 Amount = 4746.60 Rs						
Item No (14)	providing & fixing in position brass ball lock of approved quality 25mm nominal bore including cost of all materials, labour and tools & Equipments with all leads complete as per specifications.						

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M. A. R. 57 (Rule 116) **No. D**

Measurement Book

309753

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	Unit = Each Qty vide pre-measurements recorded in this MB Pg No: 309747						
	Qty = 4.00 Each @ Rate = 254.88 Amount =					1019.52	Rs
	Sub Total =					1601955.63	
	Add 12% GST					192234.64	
	Grand Total :-					17,94,190.30	Rs
	Certificate						
	1- Certified that the Contractor has done the work satisfactorily						
	2. Certified that the debris has been removed from the site						

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MEASUREMENT BOOK

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	3. Certified that the No due from the Contractor 4. certified that the above item of the work were not claimed in any other bill						

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಪುನರುತ್ಥಾನ ನಿರ್ಮಿತಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

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M. A. R. 57 (Rule 116)
Measurement Book

No. D

309754

Serial No. .....

Name of work ..... From ..... To .....

Name of Contractor of nature of Agency.....

Date of commencement of work.....

Date	Full description, etc, of work	Dimensions				Contents	Reference to last Measurement
		Number	Length	Breadth	Depth		
1	2	3	4	5	6	7	8
	5% FSD - 80098 =00 1% IT - 16020 =00 1% CUST - 16020 =00 1% SGST - 16020 =00 1% CESS - 1602 =00 1% CBT - 630 =00 Royalty 146410=00						

Bill Passed for Rs 1794190=00
in words 146410=00
Deduction / Adjustments Rs 164780
in words Sixteen lakh forty seven thousand seven hundred eighty only

A.O. Project West
Brihat Bangalore Mahanagara Palike

Executive Engineer

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